



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,326	10/24/2003	Blake Lewis	103.1033.02	8241

22883 7590 12/12/2006  
SWERNOFSKY LAW GROUP PC  
P.O. BOX 390013  
MOUNTAIN VIEW, CA 94039-0013

EXAMINER

LE. MIRANDA

ART UNIT PAPER NUMBER

2167

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/693,326

Applicant(s)

LEWIS ET AL.

Examiner

Miranda Le

Art Unit

2167

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11/22/06 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: None.  
Claim(s) objected to: None.  
Claim(s) rejected: 1-11 and 22-45.  
Claim(s) withdrawn from consideration: None.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
JOHN COTTINGHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Miranda Le  
December 08, 2006

Continuation of 11. does NOT place the application in condition for allowance because: Applicants' arguments do not overcome the final rejection.  
Please see attachment (pages 1-8).

**A. Finality of Office Action is premature:**

Applicant argues that the finality of Office Action is premature.

Examiner disagrees and emphasizes that the finality of Office Action was properly made due to the following reasons:

As set forth in MPEP 2106 [R-5]:

*“When evaluating the scope of a claim, every limitation in the claim must be considered. USPTO personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered. See, e.g., Diamond v. Diehr, 450 U.S. 175, 188-89, 209 USPQ 1, 9 (1981) (“In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis”).*

It is correct that “second or any subsequent actions on the merits shall be final, **except** where the examiner introduces a new ground of rejection that is **neither necessitated by applicant’s amendment of the claims** nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)”.

However, in this case, it is deemed that the scope of the newly amended independent claims have been changed, and the new scope of the amended claims filed 07/12/06, **as a whole must be considered**. The newly amended claims include the new issues, and are in contrast to the original claims as shown in the following table:

Original claims	Amended claims
A method of managing a file system for a file server comprising the steps of: maintaining a number of unallocated blocks reserved for files of the file system;	A computerized method of managing a file system for a file server comprising:
computing a <b>number of blocks needed to write the file;</b>	computing a <b>first number of blocks needed to accommodate the file size;</b>
<b>subtracting from the number of blocks needed to write the file a second number of blocks already allocated for the file to obtain a third number of blocks;</b> <b>subtracting from the third number of blocks a number of delayed allocated blocks for the file to obtain a fourth number of blocks;</b>	<b>subtracting from the first number of blocks a second number of blocks already allocated for the file;</b> <b>and the third number of blocks a number of delayed allocated blocks for the file to obtain a fourth number of unallocated blocks to be reserved to accommodate the file size;</b>
adjusting the number of reserved unallocated blocks by the fourth number.	

The scope of the newly amended claims is clearly shown to be changed as the amended claims are very different from the original claims, and thus a new ground(s) of rejection is properly warranted. It is noted that the issues regarding the dependent claims are moot in view of the aforementioned reasons.

Accordingly, the Final Office Action is proper because the new ground of rejection is indeed **necessitated by applicant's amendment**. It is reminded to applicant that the statutory set time in the Final Office Action filed 07/21/06 is continue to run.

**B. Claim Rejections under 35 USC 103(a)**

**Claims 1, 2, 4, 7, 8, 10, 24, 25, 27, 30, 31, 33, 35, 36, 38, 41, 42, 44**

**Applicant argues:**

**Nazari is silent about and does not teach or suggest “a second number of blocks already allocated of the file”, and “a third number of delayed allocated blocks for the file”.**

**Pothapragada nor Hamilton teaches or suggests “a second number of blocks already allocated for the file” as recited in Claims 1, 24.**

**The combination is impermissible hindsight.**

**Examiner responses:**

First, applicant seems to be questioning whether the Nazari, Pothapragada and Hamilton references are combinable to reasonably establish the prima facie case of obviousness under 35 USC 103.

In response to the preceding arguments, the examiner submits that in order for references to be combinable to reasonably establish the prima facie case of obviousness under 35 USC 103, they must be analogous and within the same field of endeavor.

In this case, the instant application is directed to methods of reserving unallocated blocks of the file system based upon a file size for a file (Specification, page 1, lines 18-20).

Nazari is directed to methods of allocating storage space to accommodate the additional data on the remote file server (Summary).

Pothapragada is directed to method of adapting a file system to the characteristics of the access and storage methodology of the user's data, one of the options may optimize the file system for large file random read operations by determining an average block size of the large file; and reading ahead blocks of data based on the determined average block size (Summary).

Hamilton is directed to method for acquiring a predetermined sized memory block from system memory and allocating the acquired memory for storage (Summary).

Nazari, Pothapragada and Hamilton are clearly directed to the same field as systems and methods for allocating space for file server. These references are analogous and within the same aspects of endeavor, and thus, they are combinable.

Second, the Applicant argues that Nazari is silent about and does not teach or suggest "a second number of blocks already allocated of the file", and "a third number of delayed allocated blocks for the file". Examiner disagrees for the following reasons:

Claim 1 recites: "subtracting from *the first number* of blocks *a second number of blocks already allocated* for the file and *a third number of delayed allocated blocks* for the file to obtain a *fourth number* of blocks", this limitation can be analyzed as follows:

Let's denote a number of blocks as N1;

a second number of blocks as N2;

a third number of blocks as N3;

and a fourth number of blocks as N4, which is computed as:  $N4 = N1 - N2 - N3$ .

Fig. 3 of Nazari discloses a structure of a file including N1, N2, N3 and N4 as:

N1 equates to FILE 30 (the whole rectangular block)

N2 equates to white rectangular block.

N3 equates to block 304.

N4 equates to block 308.

Nazari teaches the step of computing the space for additional space to be allocated past the end of a file residing in non-volatile storage on the remote file server (col. 2, lines 38-54), regarding both conditions *“If sufficient space is available in the non-volatile storage”* and *“If sufficient space is not available in the non-volatile storage”*.

In order to determine whether sufficient space is available, one of the methods to compute N4 can be read as:

$N4 = N1 - N2 - N3$ , if  $N4 > 0$  then the result is *“sufficient space is available”*; else, the result is *“sufficient space is not available”*.

Note that even though Nazari does not expressly disclose “delayed allocated” and “subtraction” terms, the block 304 of Nazari is equivalent to a number of delayed allocated blocks in the case of *“If sufficient space is not available in the non-volatile storage”*, the system informs the local computer system that the additional space cannot be allocated; besides, to compute the space for additional space to be allocated in Nazari, one skilled in the art would understand that some of the addition, subtraction, comparison operations must be applied.

In complement, Pothapragada disclose delayed block allocation (col. 2, line 59 to col. 3, line 7). Since the two references of Nazari and Pothapragada are directed to the methods for accessing file system including allocated space operation for a file server, it



would have been obvious to a person having ordinary skill of the art at the time the invention was made to combine the invention of Nazari and Pothapragada in arriving at the instant invention as set forth in claim 1. It is within the scope of Nazari in view of Pothapragada to employ “delayed block allocation” of Pothapragada’s in the block 304 of Nazari’s in order to optimize the file system for large file random read operations by determining an average block size of the large file, as doing so would give the added benefit of providing a server with an adaptable and configurable file system that is powerful, scalable and reliable enough to allow users to consolidate their data for different applications onto one high performance system, as taught by Pothapragada in Summary.

In response to applicant's argument that the motivation stated by the examiner to modify the teachings of Nazari with Pothapragada’s disclosure is not provided by the prior art, it is reminded the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Furthermore, Hamilton discloses the method of “subtraction operation” in computing the amount of used memory (*subtracting* UsedSize from the size of the memory, *col. 24, lines 22-44*).

The two references of Nazari and Hamilton are directed to the methods of managing memory in a computer system and thus, it would have been obvious to one of ordinary skill of the art having the teachings of Nazari, Pothapragada and Hamilton to apply the subtraction operation of Hamilton to the step of computing the unused space of

Nazari in order to calculate the amount of used memory (col. 24, lines 22-44), as doing so would give the added benefit of providing system and method that quickly allocates and reuses memory for storage of data, as taught by Hamilton (col. 10, line 65 to col. 11, line 11).

In addition, it has been brought to the Applicant's attention that Examiner relies on Nazari to teach the limitation "a second number of blocks already allocated for the file", hence, the question raised neither Pothapragada nor Hamilton teaches or suggests "a second number of blocks already allocated for the file" as recited in Claims 1, 24 is irrelevant.

For the reasons set forth above, the 103 rejection is proper.

Third, applicant seems to be suggesting that the combination of the cited references is impermissible hindsight, and that said combination is not suggested by the references. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, applicant is reminded that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this particular case, the judgment on obviousness only takes into account an amount of knowledge, which was within the level of the ordinary skilled artisan at the time the invention was made. As discussed in the preceding paragraph, the claimed

obtaining a number of blocks to be reserved to accommodate the file size is analogous to Nazari's teaching of allocating storage space in a file server. Furthermore, the claimed limitation is even more apparent to the ordinary skilled artisan when Nazari's teachings are combined with Pothapragada's and Hamilton's since Pothapragada's and Hamilton's complement the Nazari's reference in allocating storage space for a file server.

Consequently, the reconstruction of the claimed invention is properly derived from the combination of the references.

**C. Claims 3, 26, 27; 6, 29, 40; 9, 32, 43; 11, 22, 23, 34, 45**

In response to applicant's argument that Keller, Bereznyi, Crow, Schmuck, Bonwick do not suggest "a second number of blocks already allocated for the file", and "a third number of delayed allocated blocks for the file", it is noted that the examiner has relied on Nazari to teach the limitation "a second number of blocks already allocated for the file", Pothapragada to teach the limitation "a third number of delayed allocated blocks for the file" as claimed in independent claims 1, 24, 35.

As thoroughly explained in B, the combination has interpreted to disclose the claimed elements, thus, the combination renders obvious Applicant's invention.

Arguments as raised are moot since all claim limitations relevant to this issue have been addressed accordingly.

Applicant's arguments have been fully considered but they are not persuasive.